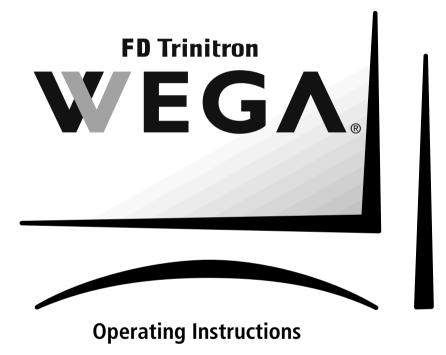
SONY® 4-094-065-**21**



©2003 Sony Corporation



WARNING

To reduce the risk of fire or shock hazard, do not expose the TV to rain or moisture.





This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

CAUTION

When using TV games, computers, and similar products with your TV, keep the brightness and contrast functions at low settings. If a fixed (non-moving) pattern is left on the screen for long periods of time at a high brightness or contrast setting, the image can be permanently imprinted onto the screen. Continuously watching the same program can cause the imprint of station logos onto the TV screen. These types of imprints are not covered by your warranty because they are the result of misuse.

Note on Caption Vision

This television receiver provides display of television closed captioning in accordance with §15.119 of the FCC rules.

Note on Cleaning the TV

Clean the TV with a soft, dry cloth. Never use strong solvents such as thinner or benzine, which might damage the finish of the cabinet.

Note to CATV System Installer

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the National Electrical Code (NEC) that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Use of this television receiver for other than private viewing of programs broadcast on UHF or VHF or transmitted by cable companies for the use of the general public may require authorization from the broadcaster/cable company and/or program owner.

NOTIFICATION

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
Consult the dealer or an experienced radio/TV technician for help.
You are cautioned that any changes or modifications not expressly approved in this manual could void your authority
to operate this equipment.

Reorient or relocate the receiving antennas.

Installing

- ☐ To prevent internal heat buildup, do not block the ventilation openings.
- Do not install the TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.
- The AC power cord is attached to the rear of the TV with hooks. Do not attempt to remove the cord from these hooks. Doing so could cause damage to the TV.



As an ENERGY STAR® Partner, Sony has determined that this product or product models meets the ENERGY STAR® guidelines for energy efficiency.

ENERGY STAR® is a U.S. registered mark.

Owner's Record

The model and serial numbers are provided on the front of this instruction manual and at the rear of the TV. Refer to them whenever you call upon your Sony dealer regarding this product.

Trademark Information

TruSurround and the **(•)*** symbol are trademarks of SRS Labs, Inc. TruSurround technology is incorporated under license from SRS Labs, Inc.

BBE and BBE Symbol are trademarks of BBE Sound, Inc. and are licensed by BBE Sound, Inc. under U.S. Patent No. 4,638,258 and 4,482,866.

Wega, FD Trinitron, Steady Sound, Digital Reality Creation, Caption Vision, CineMotion, Memory Stick, and Twin View are registered trademarks of Sony Corporation. ClearEdge VM and HD Detailer are trademarks of Sony Corporation.

IMPORTANT SAFEGUARDS

For your protection, please read these instructions completely, and keep this manual for future reference.

Carefully observe and comply with all warnings, cautions and instructions placed on the set, or described in the operating instructions or service manual.

WARNING

To guard against injury, the following basic safety precautions should be observed in the installation, use, and servicing of the set.

Use

Power Sources

This set should be operated only from the type of power source indicated on the serial/model plate. If you are not sure of the type of electrical power supplied to your home, consult your dealer or local power company. For those sets designed to operate from battery power, refer to the operating instructions.



Grounding or Polarization

This set is equipped with a polarized AC power cord plug (a plug having one blade wider than the other), or with a three-wire grounding type plug (a plug having a third pin for grounding). Follow the instructions below:

For the set with a polarized AC power cord plug

This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to have a suitable outlet installed. Do not defeat the safety purpose of the polarized plug by forcing it in.

Alternate Warning

For the set with a three-wire grounding type AC plug

This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to have a suitable outlet installed. Do not defeat the safety purpose of the grounding plug.

Overloading

Do not overload wall outlets, extension cords or convenience receptacles beyond their capacity, since this can result in fire or electric shock.



Always turn the set off when it is not to be used. When the set is left unattended and unused for long periods of time, unplug it from the wall outlet as a precaution against the possibility of an internal malfunction that could create a fire hazard.



Do not disconnect the antenna or the power cord during a heavy storm. Lightning may strike while you are holding the cable or cord, causing serious injury. Turn off your TV and wait for the weather to improve.

Memory Stick

To protect small children from injury from Memory Stick Media, remove all Memory Stick media from the TV's Memory Stick slot and store it in a safe location when it is not in use.

Object and Liquid Entry

Never push objects of any kind into the set through the cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the set.



Attachments

Do not use attachments not recommended by the manufacturer, as they may cause hazards.

Do not place any objects, especially heavy objects, on top of the set. The object may fall from the set, causing injury.



Cleaning

Unplug the set from the wall outlet before cleaning or polishing it. Do not use liquid cleaners or aerosol cleaners. Use a cloth lightly dampened with water for cleaning the exterior of the set.



If a snapping or popping sound from a TV set is continuous or frequent while the TV is operating, unplug the TV and consult your dealer or service technician. It is normal for some TV sets to make occasional snapping or popping sounds, particularly when being turned on or off.



Installation

Always use two or more people to lift or move the set. The set is heavy and the bottom surface is flat. Serious injury can result from trying to move the set by yourself alone, or from unsteady handling. Install the set on a stable, level surface.

Water and Moisture

Do not use power-line operated sets near water — for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.



Accessories

Do not place the set on an unstable cart, stand, tripod, bracket, table or shelf. The set may fall, causing serious injury to a child or an adult, and serious damage to the set. Use only a cart or stand recommended by the manufacturer for the specific model of TV. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.





Disconnect all cables and cords from the set before attempting to move the set.

Do not allow children or pets to climb up onto, or push against, the set. The set may fall, causing serious injury.

Ventilation

The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable operation of the set, and to protect it from overheating, these slots and openings must never be blocked or covered.

 Never cover the slots and openings with a cloth or other materials.

Never block the slots and openings by placing the set on a bed, sofa, rug or other similar surface.

Never place the set in a confined space, such as a bookcase, or built-in cabinet, unless proper ventilation is provided.

Do not place the set near or over a radiator or heat register, or where it is exposed to direct sunlight.

Power Cord Protection

Do not allow anything to rest on or roll over the power cord, and do not place the set where the power cord is subject to wear or abuse.

Antennas

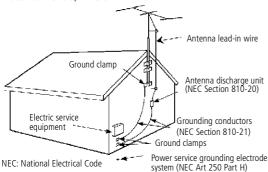
Outdoor Antenna Grounding

If an outdoor antenna is installed, follow the precautions below. An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can come in contact with such power lines or circuits.

WHEN INSTALLING AN OUTDOOR ANTENNA SYSTEM, EXTREME CARE SHOULD BE TAKEN TO KEEP FROM CONTACTING SUCH POWER LINES OR CIRCUITS AS CONTACT WITH THEM IS ALMOST INVARIABLY FATAL.

Be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code (NEC) in USA and Section 54 of the Canadian Electrical Code in Canada provide information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Antenna Grounding According to the National Electrical Code, ANSI/NFPA 70



Lightning

For added protection for this television receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the receiver due to lightning and power line surges.

Service

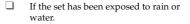
Damage Requiring Service

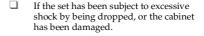
Unplug the set from the wall outlet and refer servicing to qualified service personnel under the following conditions:

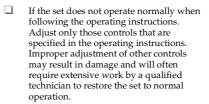
When the power cord or plug is damaged or frayed.



If liquid has been spilled into the set or objects have fallen into the product.













 When the set exhibits a distinct change in performance, it indicates a need for service.

Servicing

Do not attempt to service the set yourself since opening the cabinet may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.



Replacement Parts

When replacement parts are required, be sure the service technician certifies in writing that he has used replacement parts specified by the manufacturer that have the same characteristics as the original parts.



Unauthorized substitutions may result in fire, electric shock or other hazards.

Safety Check

Upon completion of any service or repairs to the set, ask the service technician to perform routine safety checks (as specified by the manufacturer) to determine that the set is in safe operating condition, and to so certify. When the set reaches the end of its useful life, improper disposal could result in a picture tube implosion. Ask a qualified service technician to dispose of the set.



Contents

Introducing the F	D Trinitron Wega	
	Overview	7
	Presenting the FD Trinitron Wega	7
	Package Contents	7
	Features	7
	*	
Setting Up the TV		
	Overview	
	About the AC Power Cord	
	TV Controls and Connectors	
	Front Panel	
	Rear Panel	
	Basic Connections: Connecting a Cable or Antenna	
	Cable or Antenna Only	
	Cable and Antenna Only	
	Cable Box and Cable Only	
	Cable Box Only	
	Connecting Optional Equipment	21
	About Using S VIDEO	21
	VCR and Cable	22
	VCR and Cable Box	24
	Two VCRs for Tape Editing	26
	Satellite Receiver	28
	Satellite Receiver and VCR	30
	DVD Player with Component Video Connectors	32
	DVD Player with S VIDEO and Audio Connectors	
	Camcorder	
	Audio Receiver	
	Using the CONTROL S Feature	
	Setting Up the Channel List	
	Using Auto Setup	
Using the Remote	Control	
osing the Kemote	Overview	39
	Inserting Batteries	
	Button Descriptions	
	Outside Panel	
	Inside Panel	
	Programming the Remote Control	

Using the Features

	Overview	45
	Watching TV	45
	Using the Scrolling Index	
	Factors Affecting Scrolling Index	
	Using Twin View	
	Displaying Twin Pictures	
	Factors Affecting Twin View	
	Activating the Picture	
	Changing the Picture Size	
	Using Favorite Channels	
	Creating a List of Favorite Channels	
	Displaying a List of Favorite Channels	
	Using the Freeze Function	
	Using the Memory Stick Picture Viewer	
	About Memory Stick	
	Supported Image Types	
	Unsupported Image Types	
	Inserting and Removing a Memory Stick	55
	Displaying the Memory Stick Menu	
	Using the Memory Stick Index	
	Using the Memory Stick Slideshow	
	Changing the Memory Stick Setup Options	
	Using the Rotate Picture Screen	
	Using Other Equipment with Your TV Remote Control	
	All Equipment	
	Operating a VCR	
	Operating a Satellite Receiver	
	Operating a Cable Box	
	Operating a DVD Player	
	Operating an MDP (Laserdisc Player)	
Using the Menus		
_	Overview	63
	Navigating Through Menus	
	Using the Video Menu	
	Using the Audio Menu	
	Using the Channel Menu	
	Using the Parent Menu	70
	Using the Timer Menu	
	Using the Setup Menu	
Other Information		
	Overview	77
	Glossary	78
	Notes on Using Memory Stick Media	79
	Contacting Sony	
	Troubleshooting	
	Specifications	85
	Optional Accessories	86

Introducing the FD Trinitron Wega

Overview

This chapter describes the contents of the package in which the TV is shipped and provides an overview of the features of your Wega TV.

Presenting the FD Trinitron Wega

The FD Trinitron Wega (pronounced VAY-GAH) is characterized by outstanding contrast, uncompromising accuracy, and corner-to-corner detail.

You will recognize the superiority of Wega technology almost immediately. The first thing you will probably notice is minimal glare from the flat picture tube. This flat-screen technology improves picture detail without distortion, unlike conventional curved screens. The FD Trinitron delivers outstanding image detail not only at the screen center, but also at the corners — so you can enjoy a bright, clear picture from any location in a room.

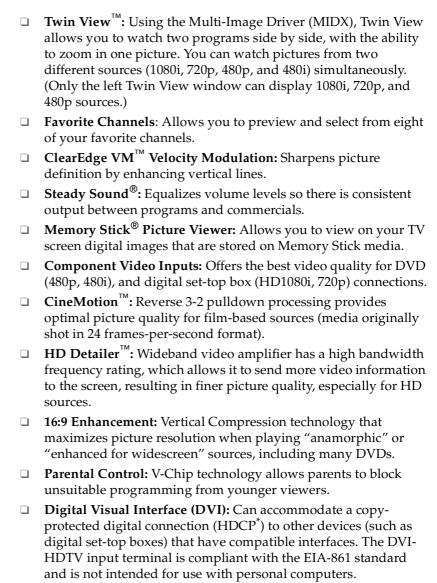
Package Contents

Along with your new Trinitron TV, the packing box contains a remote control and two AA (R6) batteries. These items are all you need to set up and use the TV.

Features

Some of the features that you will enjoy with your new TV include:

- □ DRC[®] (Digital Reality Creation) Multifunction: Unlike conventional line doublers, the DRC Multifunction feature replaces the signal's NTSC waveform with the HD equivalent, while doubling the number of vertical and horizontal lines. This results in four times the density for quality sources, such as DVD, satellite, and digital camcorders. The Video Menu allows you to select interlaced, progressive, or CineMotion output.
- □ **Scrolling Index:** Lets you select programs from a series of preview windows that scroll along the right side of the screen.



^{16:9} is also referred to as widescreen format.

^{*}High-bandwidth Digital Content Protection

Setting Up the TV

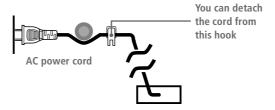
Overview

This chapter includes illustrated instructions for setting up your TV.

Торіс	Page(s)
TV Controls and Connectors	10-13
Basic Connections: Connecting a Cable or Antenna	14-20
Connecting Optional Equipment	
VCR and Cable	22
VCR and Cable Box	24
Two VCRs for Tape Editing	26
Satellite Receiver	28
Satellite Receiver and VCR	30
DVD Player with Component Video Connectors	32
DVD Player with S VIDEO and Audio Connectors	34
Camcorder	35
Audio Receiver	36
Using the CONTROL S Feature	37
Setting Up the Channel List	38

About the AC Power Cord

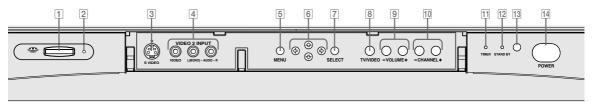
The AC power cord is attached to the rear of the TV with a hook. Use caution when removing the AC plug from its holder. Gently slide the plug upward to remove it from the hook. Once removed, the AC power plug should automatically disengage from its stored location.



Do not plug in the AC power cord until you have made all other connections.

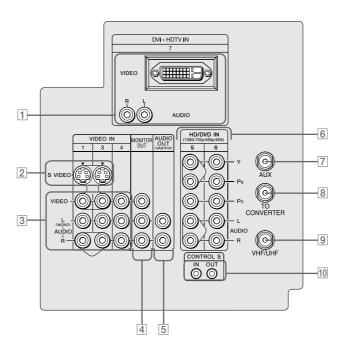
TV Controls and Connectors

Front Panel



Item		Description
1	MEMORY STICK	Memory Stick insertion slot. For details, see "Using the Memory Stick Picture Viewer" on page 52.
2	MEMORY STICK LED	When lit, indicates that the Memory Stick is being read. (Do not remove the Memory Stick when the indicator is lit.)
3	S VIDEO VIDEO 2 INPUT	Connects to the S VIDEO OUT jack on your camcorder or other video equipment that has S VIDEO. Provides better picture quality than composite video (4).
4	VIDEO/L(MONO)-AUDIO-R VIDEO 2 INPUT	Connects to the composite A/V output jacks on your camcorder or other video equipment.
5	MENU	Press to display the Menu. Press again to exit from the Menu. For details, see "Using the Menus" on page 63.
6	↑ ▼ ◆ →	Press ♦ ♦ ♦ to move the on-screen cursor.
7	+ SELECT	Press to select the on-screen highlighted item.
8	TV/VIDEO	Press repeatedly to cycle through the video equipment connected to the TV's video inputs.
9	-VOLUME +	Press to adjust the volume.
10	-CHANNEL+	Press to scan through channels. To scan quickly through channels, press and hold down either CHANNEL button.
11	TIMER LED	When lit, indicates one of the timers is set. When the timer is set, this LED will remain lit even if the TV is turned off. For details, see page 73.
12	STAND BY LED	Blinks when the TV is turned on, then shuts off when the picture is displayed. If the LED blinks continuously, this may indicate the TV needs service (see "Contacting Sony" on page 80).
13	Infrared Receiver (IR)	Receives IR signals from the TV's remote control.
14	POWER	Press to turn on and off the TV.

Rear Panel



Jack	Description
1 DVI-HDTV VIDEO AUDIO R/L (VIDEO 7 IN)	Can accommodate a copy-protected digital connection (HDCP*) to other devices (such as digital set-top boxes) that have compatible interfaces. The DVI-HDTV input terminal is compliant with the EIA-861 standard and is not intended for use with personal computers. See the instruction manual that came with your equipment for details about connecting and using it with the TV.
2 S VIDEO IN 1/3	Connects to the S VIDEO OUT jack of your VCR or other video equipment that has S VIDEO. S VIDEO provides better picture quality than either composite video ($\boxed{3}$) or VHF/UHF ($\boxed{9}$) connections.
3 VIDEO IN 1/3/4 VIDEO/L(MONO) -AUDIO-R	Connect to the composite A/V output jacks on your VCR or other video component. A fourth component A/V input jack (VIDEO 2) is located on the front panel of the TV. This video connection provides better picture quality than the VHF/UHF (9) connection.
4 MONITOR OUT	Lets you record the program you are watching to a VCR. When two VCRs are connected, you can use the TV as a monitor for tape-to-tape editing (not available with 480p, 720p, or 1080i when the input is set to VIDEO 5-7).
5 AUDIO OUT (VAR/FIX) L (MONO)/R	Connects to the left and right audio input jacks of your audio or video equipment. You can use these outputs to listen to your TV's audio through your stereo system.
6 HD/DVD IN 5/6 (1080i/720p/480p/480i)	Connect to your DVD player's or digital set-top box's component video (Y, PB, PR) and audio (L/R) jacks. Component video provides the best picture quality (better than 2, 3, or 9).
7 AUX	Auxiliary RF input that connects to your antenna, CATV cable, or cable box output jack. This is convenient if you are using two VHF/UHF sources (antenna, CATV cable, or cable box). For details, see pages 16 to 19.
8 TO CONVERTER	Connects to your cable box input jack. This VHF/UHF output jack lets you set up your TV to switch between scrambled channels (coming through a cable box) and unscrambled cable channels. Use this jack instead of a splitter to get better picture quality when you need to switch between scrambled and unscrambled cable channels. For details, see pages 18 to 19.
9 VHF/UHF	Primary RF input that connects to your VHF/UHF antenna or cable.
10 CONTROL S IN/OUT	Allows the TV to receive (IN) and send (OUT) remote control signals to other Sony infrared-controlled audio or video equipment that has the CONTROL S function.

^{*} High-bandwidth Digital Content Protection

Basic Connections: Connecting a Cable or Antenna

The way in which you will connect your TV varies, depending on how your home receives a signal (cable, cable box, antenna) and whether or not you plan to connect a VCR.

If Y	f You Are Connecting See Page			
Cak	ole or Antenna Only No cable box or VCR	15		
Cak	ole and Antenna Only No cable box or VCR	16		
Cable Box and Cable Only Cable box unscrambles only some channels (usually premium channels) No VCR		18		
Cable Box Only □ Cable box unscrambles all channels □ No VCR		20		

If you are connecting a VCR

☐ See the connections described on pages 22 and 24.

Cable or Antenna Only

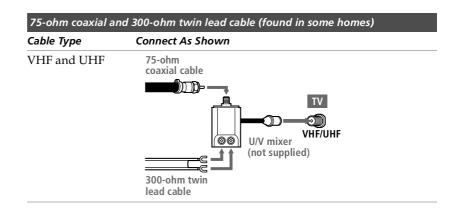
For best results, use one of the following connections if you are connecting a cable or an antenna and you:

- □ Do not need a cable box to unscramble channels. (If you have a cable box, see pages 18-20.)
- Do not intend to connect a VCR. (If you have a VCR, see pages 22 and 24.)

The connection you choose depends on the cable type you have in your home, as described below.

75-ohm coaxial cable (usually found in newer homes)		
Cable Type	Connect As Showi	า
VHF Only or combined VHF/UHF or Cable	75-ohm coaxial cable	TV VHF/UHF

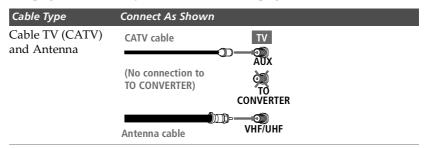
300-ohm twin lead cable (usually found in older homes)		
Cable Type	Connect As Shown	
VHF Only or UHF Only or combined VHF/UHF	300-ohm twin lead cable TV WHF/UHF Antenna connector (not supplied)	



Cable and Antenna Only

For best results, use this connection if you:

- ☐ Have a cable and an antenna.
 - (This is convenient if you are using a separate rooftop antenna to receive additional channels that are not provided by your cable company.)
- □ Do not have a cable box or VCR. (If you have a cable box, see pages 18 to 20. If you have a VCR, see pages 22 and 24.)



About Using Twin View with This Connection

With this connection, you cannot view CATV channels in the right Twin View window. For details about Twin View, see page 46.

To Do This	Do This	
Switch the TV's input between the cable and antenna	Press ANT to switch back and forth between the TV's VHF/UHF and AUX inputs.	
Receive channels using an antenna, instead of the cable	 Press ANT to switch to the AUX input. Set the Cable option to Off. For details, see "Selecting Channel Options" on page 68. Run the Auto Setup program, as described in "Using Auto Setup" on page 38. 	

Cable Box and Cable Only

DIGITAL CABLE BOX USERS: Do not use this connection. The TO CONVERTER jack is not compatible with digital cable boxes.

For best results, use this connection if:

- ☐ Your cable company scrambles some channels, such as premium channels (which requires you to use a cable box), but does not scramble all channels.
- ☐ You do not have a VCR. (If you have a VCR, see pages 22 and 24.)

With this connection you can:

- □ Use the TV remote control to change channels coming through the cable box to the TV's AUX input jack. (You must first program the remote control for your specific cable box; see "Programming the Remote Control" on page 43.)
- ☐ Use the TV remote control to change channels coming directly into the TV's VHF/UHF input. (The TV's tuner provides a better signal than the cable box.)

About Using Twin View with This Connection

With this connection, you can use all the Twin View features for unscrambled channels coming directly into the TV's VHF/UHF input jack.

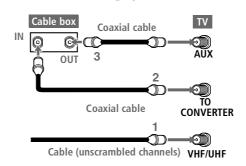
However, you can use only some of the Twin View features for channels coming through the cable box to the TV's AUX input jack. For example, when you switch the TV's input to AUX — to select the cable box input — the picture displays only in the left window. If you turn on Twin View, you can watch cable channels coming into the VHF/UHF jack in the right window, but you cannot SWAP the pictures between the left and right windows.

For details about Twin View, see page 46.

To connect the cable box and cable

- 1 Connect the cable from your cable company to the TV's VHF/UHF jack.
- 2 Use a coaxial cable to connect the TV's TO CONVERTER jack to the cable box's input jack. (The TV's internal converter lets you switch between unscrambled signals coming straight into the TV and scrambled signals coming in through the cable box, eliminating the need for an external splitter.)
- **3** Use a coaxial cable to connect the cable box's output jack to the TV's AUX jack.
- 4 Run the Auto Setup program, as described in "Setting Up the Channel List" on page 38.

If you have a digital cable box, you cannot use this connection because the TO CONVERTER jack is not compatible with digital cable boxes.



Notes on Using This Connection

notes on osing this connection	
To Do This	Do This
Use the cable box	Tune the TV to the channel the cable box is set to (usually channel 3 or 4) and then use the cable box to switch channels.
Set up the TV remote control to operate the cable box	Program the remote control. See "Programming the Remote Control" on pages 43-44.
Activate the remote control to operate the cable box	Press SAT/CABLE FUNCTION.
Prevent the accidental switching of TV channels	When using the cable box, you need the TV to stay on the channel the cable box is set to (usually channel 3 or 4). You can use the TV's Channel Fix feature to lock in a specific channel. For details, see "Using the Channel Menu" on page 68.
Switch the TV's input between the cable box and cable	Press ANT to switch back and forth between the TV's VHF/UHF (unscrambled channels) and AUX (scrambled) inputs.

Cable Box Only

For best results, use this connection if:

- ☐ Your cable company scrambles all channels, which requires you to use a cable box.
- ☐ You do not have a VCR. (If you have a VCR, see pages 22 and 24.)

With this connection you can:

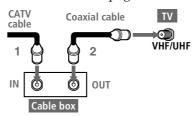
☐ Use the TV remote control to change channels coming through the cable box to the TV's VHF/UHF jack. (You must first program the remote control for your specific cable box.)

About Using Twin View with This Connection

With this connection, all channels come into the TV through your cable box and only one unscrambled signal is sent to the TV, so you cannot use the Twin View feature. If some of your channels are scrambled, but others are not, consider using the "Cable Box and Cable" connection on page 18 instead. For details about Twin View, see page 46.

To connect the cable box

- 1 Connect the CATV cable to the cable box's input jack.
- **2** Use a coaxial cable to connect the cable box's output jack to the TV's VHF/UHF jack.
- 3 Run the Auto Setup program, as described in "Setting Up the Channel List" on page 38.



Notes on Using This Connection

To Do This	Do This
Use the cable box	Tune the TV to the channel the cable box is set to (usually channel 3 or 4) and then use the cable box to switch channels.
Set up the TV remote control to operate the cable box	Program the remote control. See "Programming the Remote Control" on pages 43-44.
Activate the remote control to operate the cable box	Press SAT/CABLE FUNCTION.
Prevent the accidental switching of TV channels	When using the cable box, you need the TV to stay on the channel the cable box is set to (usually channel 3 or 4). You can use the TV's Channel Fix feature to lock in a specific channel. For details, see "Using the Channel Menu" on page 68.

Connecting Optional Equipment

Use the directions in this section to connect the following optional equipment:

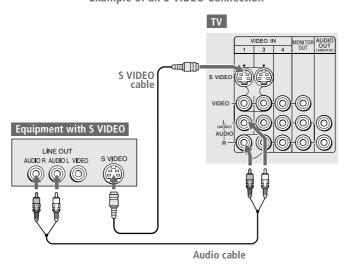
If You Are Connecting	See Page
VCR and Cable	22
VCR and Cable Box	24
Two VCRs for Tape Editing	26
Satellite Receiver	28
Satellite Receiver and VCR	30
DVD Player with Component Video Connectors	32
DVD Player with S VIDEO and Audio Connectors	34
Camcorder	35
Audio Receiver	36

About Using S VIDEO



If the optional equipment you are connecting has an S VIDEO jack (shown at left), you can use an S VIDEO cable for improved picture quality (compared to an A/V cable). Because S VIDEO carries only the video signal, you also need to connect audio cables for sound, as shown below.

Example of an S VIDEO Connection



Cables are often color-coded to connectors. Connect red to red, white to white, etc.

VCR and Cable

For best results, use this connection if:

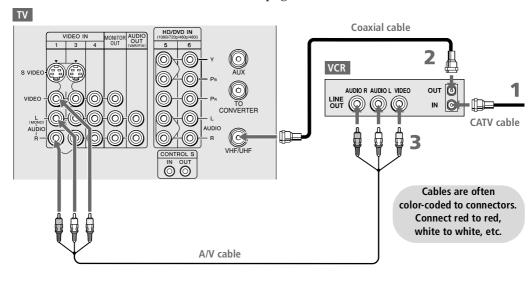
☐ Your cable company does not require you to use a cable box.

About Using Twin View with This Connection

With this connection, you can use all the features of Twin View. For details about Twin View, see page 46.

To connect the VCR and cable

- 1 Connect the CATV cable to the VCR's VHF/UHF input jack.
- **2** Use a coaxial cable to connect the VCR's VHF/UHF output jack to the TV's VHF/UHF jack.
- 3 Use an A/V cable to connect the VCR's A/V output jacks to the TV's A/V input jacks.
- 4 Run the Auto Setup program, as described in "Setting Up the Channel List" on page 38.





com com g com com	
To Do This	Do This
Watch the VCR	Press TV/VIDEO repeatedly to select the VCR input (VIDEO 1 in the illustration).
Watch cable channels	Press TV/VIDEO repeatedly to select the cable input (VHF/UHF in the illustration).
Set up the TV remote control to operate the VCR	If you have a non-Sony VCR, you must program the remote control. See "Programming the Remote Control" on pages 43-44.
Activate the TV remote control to operate the VCR	Set the A/V slide switch to the position you programmed for the VCR. Then press VCR/DVD FUNCTION.
Control VCR functions with the TV remote control	See "Operating a VCR" on page 60.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on pages 74-75.

VCR and Cable Box

For best results, use this connection if:

☐ Your cable company scrambles some channels, such as premium channels (which requires you to use a cable box), but does not scramble all channels.

About Using Twin View with This Connection

With this connection, you can use all the features of Twin View. For details about Twin View, see page 46.

With this connection you can:

- ☐ Use the TV remote control to change channels coming through the cable box. (You must first program the remote control for your specific cable box; see "Programming the Remote Control" on page 43.)
- ☐ Use the TV remote control to change channels coming directly into the TV's VHF/UHF jack. (The TV's tuner provides a better signal than the cable box.)
- □ Record channels coming through the cable box and channels coming directly into the TV.

To connect a VCR and cable box, you need:

☐ A splitter, which is a small, inexpensive device that you can purchase at your local electronics store.

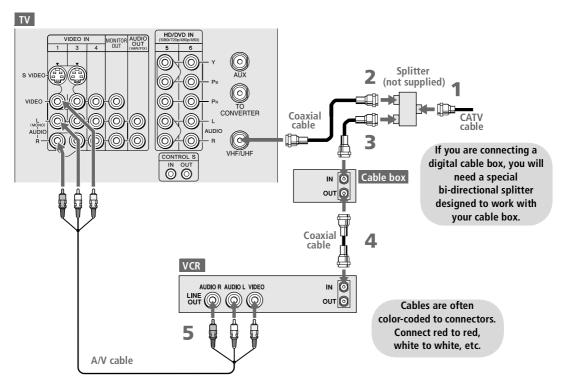
DIGITAL CABLE BOX USERS: If you are connecting a digital cable box, you will need a special bi-directional splitter that is designed to work with your digital cable box. Contact your cable provider for details.

- ☐ Three coaxial cables.
- ☐ One A/V cable or one S VIDEO cable with audio cables.

To connect the VCR and cable box

- 1 Connect the CATV cable to the single (input) jack of the splitter.
- 2 Use a coaxial cable to connect one of the splitter's two output jacks to the TV's VHF/UHF jack.
- 3 Use a coaxial cable to connect the splitter's other output jack to the cable box's input jack.
- 4 Use a coaxial cable to connect the cable box's output jack to the VCR's RF input jack.
- 5 Use an A/V cable to connect the VCR's A/V output jacks to the TV's A/V input jacks.
- 6 Run the Auto Setup program, as described in "Setting Up the Channel List" on page 38.

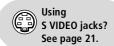




Notes on Using This Connection

Notes on osing this connection	
To Do This	Do This
Watch cable (unscrambled) channels	Press TV/VIDEO repeatedly to select the cable input (UHF/VHF in the illustration).
Watch cable box (scrambled) channels	Turn on the VCR and tune it to the channel the cable box is set to (usually channel 3 or 4). Press TV/VIDEO repeatedly to select the VCR input (VIDEO 1 in the illustration). Use the cable box to change channels.
Watch the VCR	Press TV/VIDEO repeatedly to select the VCR input (VIDEO 1 in the illustration).
Set up the TV remote control to operate the cable box or VCR	If you have a non-Sony VCR, you must program the remote control. See "Programming the Remote Control" on pages 43-44.
Activate the remote control to operate the cable box or VCR	For the cable box, press SAT/CABLE FUNCTION. For the VCR, set the A/V slide switch to the position you programmed for the VCR. Then press VCR/DVD FUNCTION.
Control specific cable box and VCR functions with the TV remote control	See "Operating a Cable Box" on page 61 and "Operating a VCR" on page 60.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on pages 74-75.

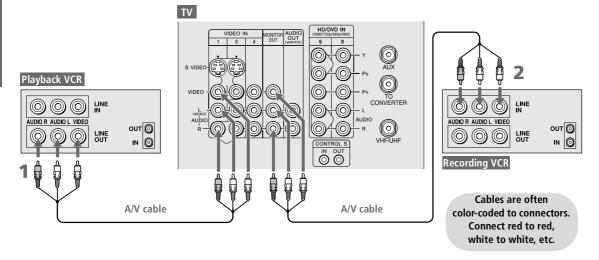
Two VCRs for Tape Editing



Connecting two VCRs lets you record from one VCR to the other. By connecting them as shown below, you can view (monitor) what is being recorded.

To connect two VCRs for tape editing

- 1 Use an A/V cable to connect the playback VCR's A/V output jacks to the TV's A/V input jacks.
- **2** Use an A/V cable to connect the recording VCR's A/V input jacks to the TV's MONITOR OUT jacks.



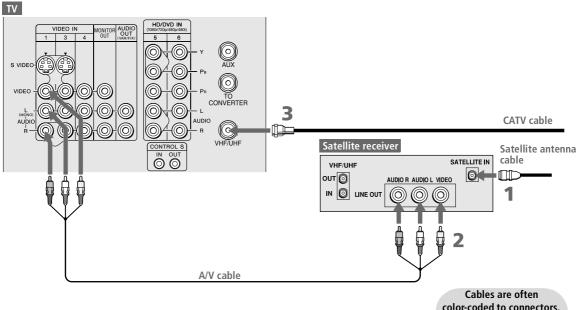
To Do This	Do This
View (monitor) what is being recorded	Press TV/VIDEO repeatedly to select the VCR input (VIDEO 1 in the illustration above).
Set up the TV remote control to operate the VCR(s)	If you have a non-Sony VCR, you must program the remote control. See "Programming the Remote Control" on pages 43-44.
Activate the TV remote control to operate the VCR(s)	Set the A/V slide switch to the position you programmed for the VCR. Then press VCR/DVD FUNCTION.
Control VCR functions with the TV remote control	See "Operating a VCR" on page 60.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on pages 74-75.

Satellite Receiver



To connect a satellite receiver

- 1 Connect the satellite antenna cable to the satellite receiver's satellite input jack.
- 2 Use an A/V cable to connect the satellite receiver's A/V output jacks to the TV's A/V input jacks.
- 3 Connect a CATV cable from your cable or antenna to the TV's VHF/UHF jack.
- 4 Run the Auto Setup program, as described in "Setting Up the Channel List" on page 38.



Cables are often color-coded to connectors. Connect red to red, white to white, etc.

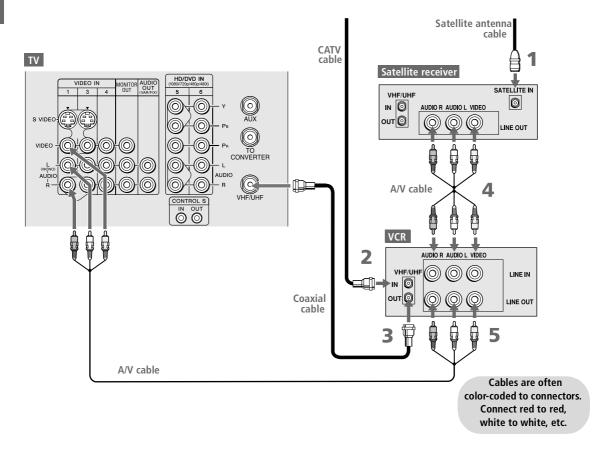
To Do This	Do This
Watch the satellite receiver	Press TV/VIDEO repeatedly to select the satellite receiver input (VIDEO 1 in the illustration).
Set up the TV remote control to operate the satellite receiver	If you have a non-Sony satellite receiver, you must program the remote control. See "Programming the Remote Control" on pages 43-44.
Activate the TV remote control to operate the satellite receiver	Press SAT/CABLE FUNCTION.
Control satellite receiver functions with the TV remote control	See "Operating a Satellite Receiver" on page 60.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on pages 74-75.

Satellite Receiver and VCR



To connect a satellite receiver and VCR

- 1 Connect the satellite antenna cable to the satellite receiver's satellite input jack.
- **2** Connect the CATV cable to the VCR's VHF/UHF input jack.
- 3 Use a coaxial cable to connect the VCR's VHF/UHF output jack to the TV's VHF/UHF jack.
- 4 Use an A/V cable to connect the satellite receiver's A/V output jacks to the VCR's A/V input jacks.
- 5 Use an A/V cable to connect the VCR's A/V output jacks to the TV's A/V input jacks.
- 6 Run the Auto Setup program, as described in "Setting Up the Channel List" on page 38.



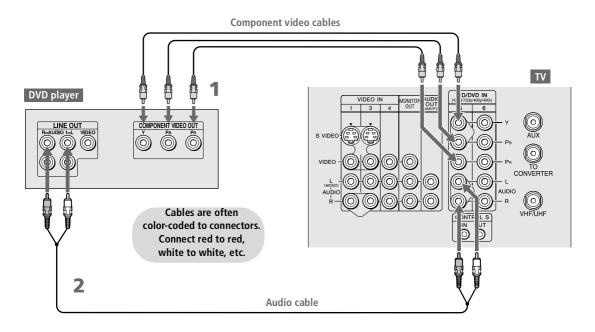
Notes on osing this connection	
To Do This	Do This
Watch the satellite receiver	Press TV/VIDEO repeatedly to select the VCR input (VIDEO 1 in the illustration).
	The VCR may need to be turned on and set to the satellite receiver input.
Watch the VCR	Press TV/VIDEO repeatedly to select the input to which the VCR is connected (VIDEO 1 in the illustration).
Set up the TV remote control to operate the satellite receiver or VCR	If you have a non-Sony VCR or satellite receiver, you must program the remote control. See "Programming the Remote Control" on pages 43-44.
Activate the TV remote control to operate the satellite receiver or VCR	For the satellite receiver, press SAT/CABLE FUNCTION. For the VCR, set the A/V slide switch to the position you programmed for the VCR. Then press VCR/DVD FUNCTION.
Control satellite receiver and VCR functions with the TV remote control	See "Operating a Satellite Receiver" on page 60 and "Operating a VCR" on page 60.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on pages 74-75.

DVD Player with Component Video Connectors

For best results, use this connection if your DVD player has component video (Y, PB, PR) jacks.

To connect a DVD player with component video connectors

- 1 Use three separate component video cables to connect the DVD player's Y, PB and PR jacks to the Y, PB and PR jacks (VIDEO 5) on the TV.
 - The Y, PB and PR jacks on your DVD player are sometimes labeled Y, CB and CR, or Y, B-Y and R-Y. If so, connect the cables to like colors.
- **2** Use an audio cable to connect the DVD player's audio output jacks to the TV's VIDEO 5 audio input jacks.



To Do This	Do This
Watch the DVD player	Press TV/VIDEO repeatedly to select the DVD input (VIDEO 5 in the illustration).
Set up the TV remote control to operate the DVD player	If you have a non-Sony DVD player, you must program the remote control. See "Programming the Remote Control" on pages 43-44.
Activate the TV remote control to operate the DVD player	Set the A/V slide switch to the position you programmed for the DVD player. Then press VCR/DVD FUNCTION.
Control DVD functions with the TV remote control	See "Operating a DVD Player" on page 61.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on pages 74-75.

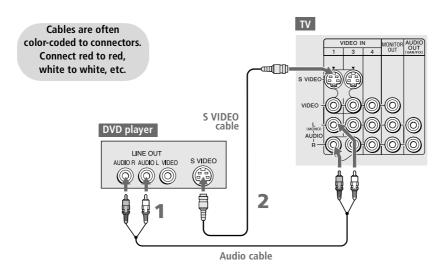
 $\mathop{\not{\mbox{\it L}}}\nolimits_{\mbox{\it D}}$ You cannot record the signal from any equipment connected into the Y, PB, PR jacks.

DVD Player with S VIDEO and Audio Connectors

Use this connection if your DVD player does not have component video (Y, PB, PR) jacks.

To connect a DVD player with A/V connectors

- 1 Use an audio cable to connect the DVD player's audio output jacks to the TV's audio input jacks.
- 2 Use an S VIDEO cable to connect the DVD player's S VIDEO jack to the TV's S VIDEO jack.



Notes on Using This Connection

To Do This	Do This
Watch the DVD player	Press TV/VIDEO repeatedly to select the DVD input (VIDEO 1 in the illustration).
Set up the TV remote control to operate the DVD player	If you have a non-Sony DVD player, you must program the remote control. See "Programming the Remote Control" on pages 43-44.
Activate the TV remote control to operate the DVD player	Set the A/V slide switch to the position you programmed for the DVD player. Then press VCR/DVD FUNCTION.
Control DVD functions with the TV remote control	See "Operating a DVD Player" on page 61.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on pages 74-75.

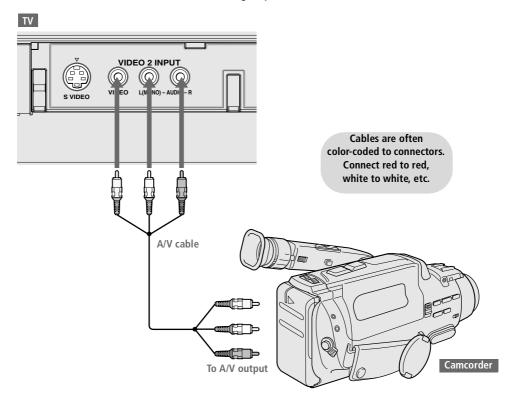
Camcorder



For easy connection of a camcorder, the TV has front A/V input jacks. If you prefer, however, you can connect the camcorder to the TV's rear A/V input jacks.

To connect a camcorder

1 Use A/V cables to connect the camcorder's A/V output jacks to the TV's A/V input jacks.



If you have a mono camcorder, connect its audio output jack to the TV's L MONO audio jack.

Note on Using This Connection

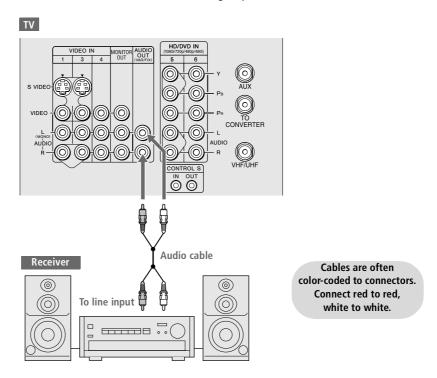
To Do This	Do This
Watch the camcorder	Press TV/VIDEO repeatedly to select the camcorder input (VIDEO 2 in the illustration).
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on pages 74-75.

Audio Receiver

For improved sound quality, you may want to play the TV's audio through your stereo system.

To connect an audio system

1 Use an audio cable to connect the TV's audio output jacks to the audio receiver's line input jacks.



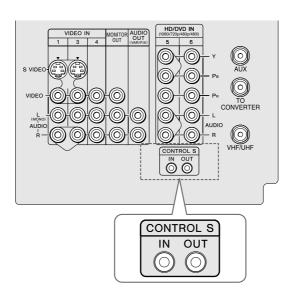
- 2 Using the TV's Audio Menu, set the Speaker option to Off. Then set the Audio Out option to Fixed or Variable, depending on how you want to control the volume. For details, see "Using the Audio Menu" on page 66.
- 3 Turn on the audio receiver, and then set the receiver's line input to the jack into which you connected the TV.

Using the CONTROL S Feature

CONTROL S allows you to control your system and other Sony equipment with one remote control. In addition to allowing you to control multiple devices with one remote control, the CONTROL S feature allows you to always point your remote control at your TV, instead of having to point it at the other equipment, which might be hidden or out of direct line of sight.

Use CONTROL S IN to send signals to the TV.

Use CONTROL S OUT to send signals to connected equipment.



Setting Up the Channel List

After you finish connecting your TV, you need to run Auto Setup to set up your channels. The Auto Setup screen appears when you turn on your TV for the first time after hooking it up. If you do not want to set up the channels at this time, you can do it later by selecting the Auto Program option in the Channel Menu (see page 68).

The Auto Setup feature does not apply for installations that use a cable box for all channel selection.

Using Auto Setup

- 1 Press POWER to turn on the TV.
- 2 Press TV FUNCTION on the remote control.
- **3** To continue running Auto Setup, press CH+. To exit Auto Setup, press CH-.

Auto Setup automatically creates a list of receivable channels. When finished, the lowest numbered channel is displayed.

To reset the TV to factory settings

- 1 Press POWER to turn on the TV.
- 2 Hold down RESET on the remote control.
- 3 Press TV POWER on the TV. (The TV will turn itself off, then back on.)
- 4 Release RESET.

Using the Remote Control

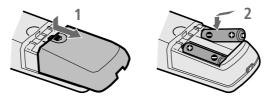
Overview

This chapter describes how to set up, program, and use the TV's remote control.

Торіс	Page
Inserting Batteries	39
Button Descriptions	
Outside Panel	40
Inside Panel	42
Programming the Remote Control	43

Inserting Batteries

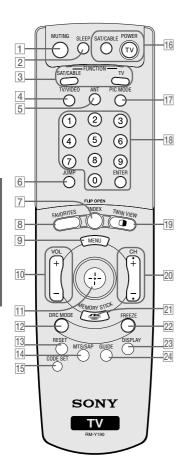
- 1 Remove the battery cover from the remote control.
- 2 Insert two size AA (R6) batteries (supplied) by matching the **⊕** and **⊕** terminals on the batteries to the diagram inside the battery compartment.
- 3 Replace the battery cover.



Remove the batteries to avoid damage from possible battery leakage whenever you anticipate that the remote control will not be used for an extended period. Handle the remote control with care. Avoid dropping it, getting it wet, placing it in direct sunlight, near a heater, or where the humidity is high.

Button Descriptions

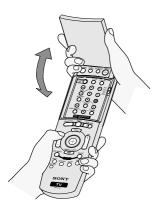
Outside Panel

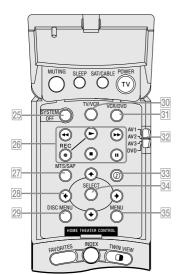


Button	Description
1 MUTING	Press to mute the sound. Press again or press VOL+ to restore the sound.
2 SLEEP	Press repeatedly until the TV displays the time in minutes (15, 30, 45, 60, or 90) that you want the TV to remain on before shutting off automatically. To cancel press until Sleep Off appears. While the Sleep feature is set, press once to display the remaining time.
3 FUNCTION Buttons	The indicator lights up momentarily when pressed to show which equipment the remote control is operating:
	SAT/CABLE: Press to have the remote control operate the satellite receiver or cable box.
	TV: Press to have the remote control operate the TV.
4 TV/VIDEO	Press repeatedly to cycle through the video equipment connected to the TV's video inputs.
5 ANT	Press to switch between the sources connected to the TV's VHF/UHF and AUX inputs.
6 JUMP	Press to jump back and forth between two channels. The TV alternates between the current channel and the last channel that was selected.
7 INDEX	Press to display the Scrolling Index. For details, see page 46.
8 FAVORITES	Press to display the Favorite Channels list. For details, see page 50.
9 MENU	Press to display the Menu. Press again to exit from the Menu. For details, see "Using the Menus" on page 63.
10 VOL +/-	Press to adjust the volume.
11	Move the joystick ♠♦ ♦ to move the on-screen cursor. To select an item, press the center of the joystick (⊕).
12 DRC MODE	Press repeatedly to cycle through the available high- resolution picture modes: Interlaced, Progressive, CineMotion. Also available in the Video Menu. For details, see "Selecting Video Options" on pages 64-65.
13 RESET	Press to reset the settings to the factory defaults. See pages 64, 66, and 73. Also used to clear Favorite Channels (see page 50).
14 MTS/SAP	Press repeatedly to cycle through the Multi-channel TV Sound (MTS) options: Stereo, Auto SAP (Second Audio Program), and Mono. Also available in the Audio Menu. For details, see "Using the Audio Menu" on page 66.

Button	Description
15 CODE SET	Press to program the remote control to operate non- Sony video equipment. For details, see "Programming the Remote Control" on page 43.
16 POWER Buttons	SAT/CABLE: Press to turn on and off the satellite receiver or cable box.
	TV: Press to turn on and off the TV.
17 PIC MODE	Press repeatedly to cycle through the available video picture modes: Vivid, Standard, Movie, Pro. Also available in the Video Menu. For details, see "Selecting Video Options" on pages 64-65.
18 0 - 9 ENTER	Press 0 - 9 to select a channel; the channel changes after 3 seconds. Press ENTER to change channels immediately.
19 TWIN VIEW	Press to turn on and off Twin View. For details, see pages 47-49.
20 CH +/-	Press to scan through channels. To scan quickly through channels, press and hold down either CH button.
21 MEMORY STICK	Press to display the Memory Stick Menu. For details, see "Using the Memory Stick Picture Viewer" on page 52.
22 FREEZE	Press to freeze the picture. Press again to restore the picture. For details, see page 51.
23 DISPLAY	Press once to display the current channel number, current time, and channel label (if set). Press again to turn Display off.
24 GUIDE	Press to display the program guide of your satellite program provider.

Inside Panel





To access the inside panel, open the outside cover as shown.

Button	Description
25 SYSTEM OFF	Press to turn off all Sony brand audio/video equipment
	at once. (May not function with older Sony equipment.)
26 Transport	≪ Rewind
Buttons	► Play
	■ Record (press together with ►)
	■ Stop
	►► Fast forward
	II Pause
27 MTS/SAP	Press repeatedly to cycle through the Multi-channel TV
	Sound (MTS) options: Stereo, Auto SAP (Second Audio
	Program), and Mono. Also available in the Audio Menu.
	For details, see "Using the Audio Menu" on page 66.
28 ★▼ ← →	Press ◆◆ ◆ to move the VCR or DVD player's on-
	screen cursor.
29 DISC MENU	Press to display the DVD Menu.
30 TV/VCR	Press to change to the VHF/UHF output of the VCR.
31 VCR/DVD	Press to turn on and off the VCR or DVD player.
32 AV1/2/3/DVD	Use the A/V slide switch to control connected video
Slide Switch	equipment. You can program one video source for each
	switch position. For details, see "Programming the
	Remote Control" on page 43.
33 ①	Press repeatedly to step through the Audio Effect
	options. Also available in the Audio Menu. For details,
	see page 66.
34 SELECT	Press to select an item in the VCR or DVD player's
	menu.
35 MENU	Press to display the DVD player setup menu.

Programming the Remote Control

The remote control is preset to operate Sony brand video equipment.

Sony Equipment	Switch Position on Remote Control	Programmable Code Number
Beta, ED Beta VCRs	AV1	303
8 mm VCR	AV2	302
VHS VCR	AV3	301
DVD player	DVD	751

If you have video equipment other than Sony brand that you want to control with the TV's remote control, use the following procedure to program the remote control.

- The equipment must have infrared (IR) remote capability in order to be used with the remote control.
- 1 Turn to the list of "Manufacturer's Codes" on page 44, and find the three-digit code number for the manufacturer of your equipment. (If more than one code number is listed, use the number listed first.)
- 2 Set the A/V slide switch to 1, 2, 3, or DVD.
- 3 Press CODE SET.
- 4 Enter the three-digit manufacturer's code number.
- **5** Press ENTER.
 - You must do step 5 within 10 seconds of step 4, or you must redo steps 3 through 5.
- 6 To check if the code number works, aim the TV's remote control at the equipment and press the POWER button that corresponds with that equipment. If it responds, you are done. If not, try using another code listed for that manufacturer.



- If more than one code number is listed, try entering them one by one until you come to the correct code for your equipment.
- If you enter a new code number, the code number you previously entered at that setting is erased.
- In some cases, you may not be able to operate your equipment with the supplied remote control. In such cases, use the equipment's own remote control unit.
- Whenever you remove the batteries to replace them, the code numbers may revert to the factory setting and must be reset.

VCRs

VCRs	
Manufacturer	Code
Sony	301, 302, 303
Admiral	327
(M. Ward)	
Aiwa	338, 344
Audio	314, 337
Dynamic	
Broksonic	319, 317
Canon	309, 308
Citizen	332
Craig	302, 332
Criterion	315
Curtis Mathes	304, 338, 309
Daewoo	341, 312, 309
DBX	314, 336, 337
Dimensia	304
Emerson	319, 320, 316,
	317, 318, 341
Fisher	330, 335
Funai	338
General	329, 304, 309
Electric	
Go Video	322, 339, 340
Goldstar	332
Hitachi	306, 304, 305,
T D . I	338
Instant Replay	309, 308
JC Penney	309, 305, 304,
	330, 314, 336,
JVC	337
JVC	314, 336, 337, 345, 346, 347
Kenwood	314, 336, 332,
Renwood	337
LXI (Sears)	332, 305, 330,
LAI (Scars)	335, 338
Magnavox	308, 309, 310
Marantz	314, 336, 337
Marta	332
Memorex	309, 335
Minolta	305, 304
Mitsubishi/	323, 324, 325,
MGA	326
Multitech	325, 338, 321
NEC	314, 336, 337
Olympic	309, 308
Optimus	327
- L	=-

Manufacturer	Code
Orion	317
Panasonic	308, 309, 306,
	307
Pentax	305, 304
Philco	308, 309
Philips	308, 309, 310
Pioneer	308
Quasar	308, 309, 306
RCA/	304, 305, 308,
PROSCAN	309, 311, 312,
	313, 310, 329
Realistic	309, 330, 328,
	335, 324, 338
Sansui	314
Samsung	322, 313, 321
Sanyo	330, 335
Scott	312, 313, 321,
	335, 323, 324,
	325, 326
Sharp	327, 328
Signature	338, 327
2000 (M.	
Ward)	
SV2000	338
Sylvania	308, 309, 338,
J	310
Symphonic	338
Tashiro	332
Tatung	314, 336, 337
Teac	314, 336, 338,
	337
Technics	309, 308
Toshiba	312, 311
Wards	327, 328, 335,
	331, 332
Yamaha	314, 330, 336,
	337
Zenith	331

Laserdisc Players

Manufacturer	Code
Sony	701
Panasonic	704, 710
Pioneer	702

DVD Players

Manufacturer	Code
Sony	751
General	755
Electric	
Hitachi	758
JVC	756
Magnavox	757
Mitsubishi	761
Oritron	759
Panasonic	753
Philips	757
Pioneer	752
RCA/Proscan	755
Samsung	758
Toshiba	754
Zenith	760

Cable Boxes

Manufacturer	Code
Sony	230
Hamlin/Regal	222, 223, 224,
	225, 226
Jerrold/G.I./	201, 202, 203,
Motorola	204, 205, 206,
	207, 208, 218
Oak	227, 228, 229
Panasonic	219, 220, 221
Pioneer	214, 215
Scientific	209, 210, 211
Atlanta	
Tocom	216, 217
Zenith	212, 213

Satellite Receivers

Manufacturer	Code
Sony	801
Dish Network	810
Echostar	810
General	802
Electric	
Hitachi	805
Hughes	804
Mitsubishi	809
Panasonic	803
RCA/	802, 808
PROSCAN	
Toshiba	806, 807